## ABSTRACT

A semiconductor device comprises a $P^-$-type semiconductor substrate (15), an $N^-$-type semiconductor substrate (21) formed on the $P^-$-type semiconductor substrate (15), an upper P-type semiconductor region (13) formed in the surface region of the $N^-$-type semiconductor substrate (21) and electrically connected to a ground electrode (1), a lower P-type semiconductor region (14) formed beneath the upper P-type semiconductor region (13), a first $N^+$-type semiconductor region (22) electrically connected to a drain electrode (2), a P-type semiconductor region (19) functioning as a channel forming region, a $P^+$-semiconductor region (12) electrically connected to a back gate electrode (5), a second $N^+$-semiconductor region (23) electrically connected to a source electrode (4), and a gate electrode (3) and a gate insulating film (31) both on the P-type semiconductor region (19), and the lower P-type semiconductor region (14) extends toward the first $N^+$-type semiconductor region (22).